

What Is Claimed Is:

1. A guide blade 35 of an axial flow fan shroud 30 comprising:

a leading edge 37 for introducing the air blown by an axial
5 flow fan 10 including a plurality of blades 12;

a trailing edge 39 extended from the leading edge 37 to downstream; and

an air flow guide surface 38 for guiding the blown air between the leading and trailing edges 37 and 39,

10 wherein a first outlet area a is defined by at a radius r from a root in the total length R of an angle of projection Aout of the guide blade 35 and a second outlet area b is defined by the remainder, the angle of projection Aout increases as approaching a tip with respect to an axial line in the second
15 outlet area b.

2. The guide blade 35 of an axial flow fan shroud 30 according to claim 1, wherein the second outlet area b has a radial ratio r/R in the range of about 0.4 to 1 with respect
20 to the total length R of the guide blade 35.

3. The guide blade 35 of an axial flow fan shroud 30 according to claim 1, wherein the angle of projection Aout gradually increases from 0 to about 60° .

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4. The guide blade 35 of an axial flow fan shroud 30 according to claim 1, wherein a first inlet area A is defined by at a radius r from the root in the total length R of an angle of incidence Ain of the guide blade 35 and a second inlet area
30 B is defined by the remainder, the second inlet area B has a radial ratio r/R in the range of about 0.4 to 1 with respect

to the total length R of the guide blade 35, and the angle of incidence A_{in} gradually increases up to about 90° in the second inlet area B.

5 5. The guide blade 35 of an axial flow fan shroud 30 according to claim 4, wherein the air flow guide surface 38 is so curved that the angle of incidence A_{in} is the same as an air inflow angle $\tan^{-1}(U_s/U_z)$ in the first inlet area A, and the angle of projection A_{out} is 0° with respect to the axial line.

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6. The guide blade 35 of an axial flow fan shroud 30 according to claim 1, wherein the air flow guide surface 38 is curved into the form of an arc between the leading edge 37 and the trailing edge 39.

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7. The guide blade 35 of an axial flow fan shroud 30 according to claim 4, further comprising an auxiliary ring 36 formed by a radius r from the root of the total length R of the guide blade 35, the auxiliary ring 36 partitioning the first and second inlet areas A and B and the first and second outlet areas a and b.

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